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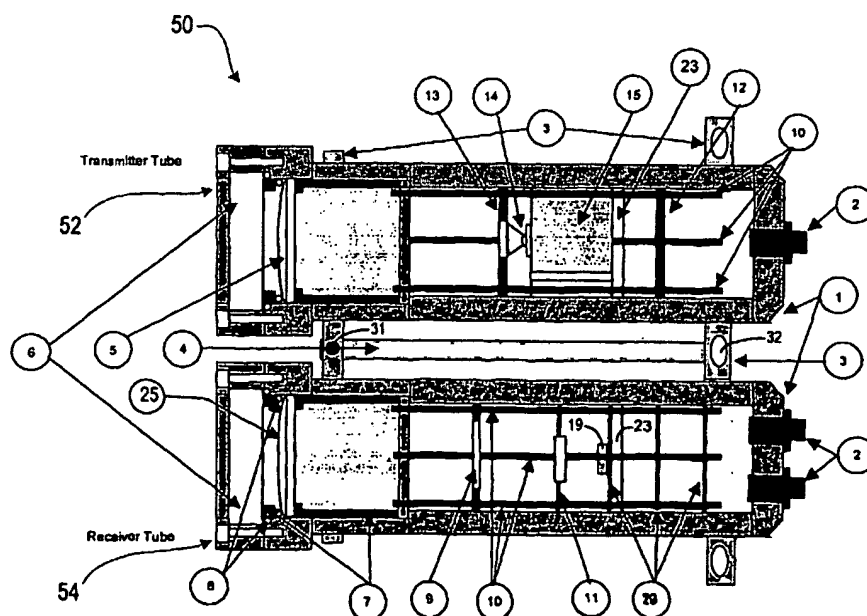
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(54) Title: **FLUOROMETER**



(57) Abstract: A fluorometer comprising an excitation system including an excitation source for producing excitation light capable of causing fluorescence in fluorescent material; and a detection system for detecting said fluorescence. The excitation source comprises one or more light emitting diodes (LEDs) associated with means for causing said excitation light to form a beam that projects, during use, from the fluorometer. In one embodiment, the excitation system and the detection system are located in respective separate housings, the angular disposition between the housings being adjustable. In other embodiments, the excitation system and the detection system are located in the same housing. The fluorometer is particularly suited for use in detecting leaks in aqueous environments, especially when mounted on an underwater vehicle.

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